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Monitoring the Long-Term Effectiveness of Integrated Safety Management (ISM) Implementation Through Use of a Performance Dashboard Process

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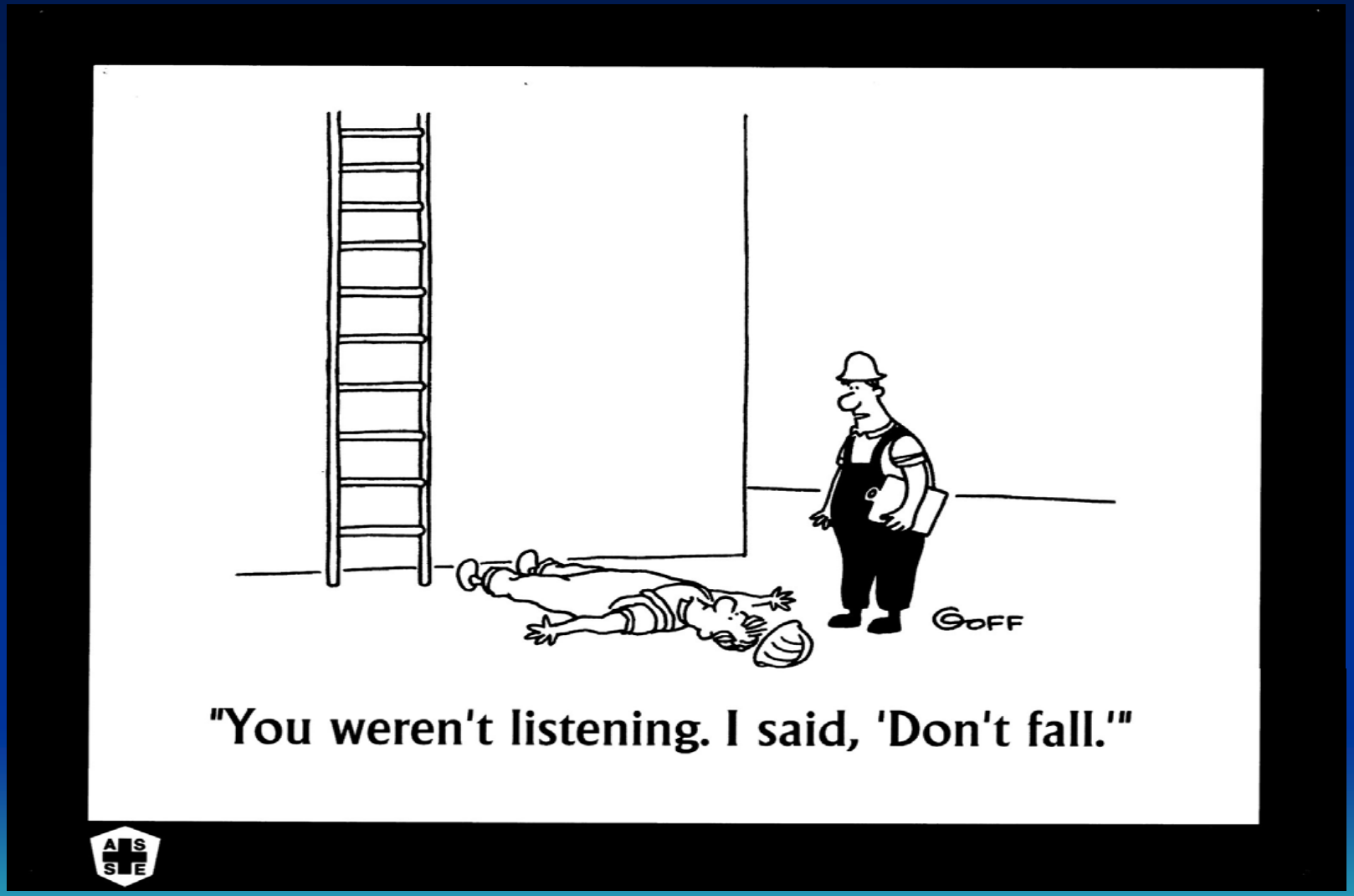
Getting Started



Getting Started (continued)

- Good news!

- Opportunity to win free "stuff" [OK, OK, beads]

- After receiving initial approval of their ISMS programs, some contractors have lacked an effective method to monitor long-term effectiveness of their ISMS program

- DEAR Clause 48 CFR 970.5223-1, "Integration of Environment, Safety and Health into Work Planning and Execution," requires the overall integrity of the contractor ISMS program to be maintained

Background

- Guidance addressing annual ISM reviews
  - DOE G 450.4-1B, Integrated Safety Management System Guide for use with Safety Management System Policies (DOE P 450.4, DOE P 450.5, and DOE P 450.6); The Functions, Responsibilities and Authorities Manual; and the Department of Energy Acquisition Regulation
    - Established Continuing Core Expectations (CCEs) to guide annual reviews
  - DOE M 450.4-1, Integrated Safety Management System Manual
    - Contains DOE G 450.4-1B Continuing Core Expectations and introduces Safety Culture Attributes
  - NNSA/NSO O 450.4, Safety System Maintenance
  - DNFSB/TECH-36, Integrated Safety Management: The Foundation for a Successful Safety Culture

Challenges

- In some instances, DOE/NNSA contractors do not have a consistent method to effectively review long-term implementation of their ISM program
- Some contractors attempt to rely on traditional inspections or assessments in lieu of a more programmatic approach
- Results don't always accurately reflect actual level of implementation
- Comparison of performance with previous evaluations (e.g., trending) can prove difficult
- Inability to monitor long-term ISM implementation can lead to reduced buy-in from the organization from task level to senior management
- Collectively, these challenges do not support being able to demonstrate to DOE/NNSA/DNFSB that ISM is being effectively maintained

Method

- To assist with meeting Headquarters and Local Site Office commitments regarding ISM long-term maintenance, the Nevada Site Office (NSO) established an Integrated Safety Management Council (ISMC)
- Comprised of Federal, Contractors, and User Organizations personnel
- Co-chaired by NSO and User Organization representatives
  - Established in 2001
  - Monthly meetings are utilized to evaluate ISM implementation, address new initiatives and/or programmatic challenges
  - Coordinates development of Nevada Test Site ISM Annual Report

Method (continued)

- In support of the Nevada Test Site ISM Annual Report, NSO ISMC also coordinates performance of annual ISMS reviews, utilizing performance dashboard process
  - ISM CCES contained in DOE M 450.4-1
  - Evaluation criteria provided for each CCE
  - Completed dashboard reflects implementation status for organizations

CCE	Category	CCE	Category
1	Annual ISMS updates	6	Feedback and improvement processes
2	ISMS effectiveness (POCs)	7	Review and update of List A/List B
3	ISMS implementation	8	Contractor and DOE assessments
4	Roles and responsibilities, management responsibility for safety	9	Approving of work by DOE
5	Balancing of priorities	10	DOE ISMS implementation

ISM/CCE Performance Dashboard Example

CCE -3: Work activities reflect effective implementation of the functions of ISMS				
	Group A	Group B	Group C	Group D
Are higher-level work documents, such as project plans, translated into discrete work packages?				
Does work-planning provide for worker involvement?				
Are standardized hazard controls developed and used?				
Is emphasis placed on designing work and/or controls to reduce or eliminate hazards?				
Is work authorization defined at the activity level?				
Do individuals question deviations; are team members aware of each other's actions?				
Is worker involvement in hazard identification adequate?				

ISM/CCE Performance Dashboard Example (continued)

CCE -3: Work activities reflect effective implementation of the functions of ISMS				
	Group A	Group B	Group C	Group D
Are higher-level work documents, such as project plans, translated into discrete work packages?	G	B	Y	G
Does work-planning provide for worker involvement?	G	B	Y	G
Are standardized hazard controls developed and used?	G	B	Y	G
Is emphasis placed on designing work and/or controls to reduce or eliminate hazards?	G	Y	Y	G
Is work authorization defined at the activity level?	R	G	G	Y
Do individuals question deviations; are team members aware of each other's actions?	R	G	G	Y
Is worker involvement in hazard identification adequate?	Y	G	G	G

ISM/CCE Performance Dashboard Analysis Example

CCE -3: Work activities reflect effective implementation of the functions of ISMS				
	Group A	Group B	Group C	Group D
Are higher-level work documents, such as project plans, translated into discrete work packages?	G	B	Y	G
Does work-planning provide for worker involvement?	G	B	Y	G
Are standardized hazard controls developed and used?	G	B	Y	G
Is emphasis placed on designing work and/or controls to reduce or eliminate hazards?	G	Y	Y	G
Is work authorization defined at the activity level?	R	G	G	Y
Do individuals question deviations; are team members aware of each other's actions?	R	G	G	Y
Is worker involvement in hazard identification adequate?	Y	G	G	G

- Contractors A & C may choose to examine other contractors' processes for authorization of work and safety culture considerations
- Contractor B may be able to assist other contractors regarding methods to enhance worker involvement and development of standardized controls

ISM/CCE Performance Dashboard Analysis Example (continued)

- In addition to identifying implementation for CCE criteria, implementation at the CCE title level is also identified
- To assist with tracking, trending, and supporting evaluation results, performance is compared with previous years
  - Same color gradient process
  - Rolling five year base line
  - Performance "arrows" utilized to identity annual performance for each CCE at the title level

FY03	FY04	FY05	FY06	FY07
Y▼	Y▼	Y◄►	R	Y

System Performance Indicator Key: Improving ▲; No Change ◄►; Declining ▼

ISM/CCE Performance Dashboard Analysis Example (continued)

CCE	Performance	CCE	Performance
1	▲ Y	6	▲ G
2	◄► G	7	◄► B
3	▼ G	8	▼ Y
4	▲ R	9	◄► G
5	◄► G	10	▲ G

- Implementation of the CCE title level also supports identification of site-wide challenges
  - Non-NRTL inspection process
  - DOE O 210.2 implementation/lessons learned sharing
  - Enhancement of NNSA/NSO assessment processes
- Conveys management level information in a timely manner while readily focusing attention of potential challenges

Results

- Performance Dashboard
  - Enhanced visibility of ISMS implementing processes
  - Track and trend capability
  - Sharing of best practices/options to address participant challenges
    - Enhanced hazard analysis
    - Work control process
- ISMC
  - Open “no fault” forum to address challenges
  - Time provided for course correction
  - Active involvement/strategic planning by participants
    - Development of collaborative strategy to address implementation of 10 CFR 851, Worker Safety and Heath Program
    - Preparation for site-wide reviews by DOE/NNSA Headquarter organizations
  - Enhanced partnering with NNSA/NSO and ISMC participants

Lessons Learned

- NSO ISM CCE Performance Dashboard
  - Qualitative analysis provides value
  - Safety culture attributes readily assessed
  - Involve personnel from throughout the organization
  - Comparison of results assists with participant and/or site-wide continuous improvement
- NSO ISM Council
  - Charter guides efforts
  - Building of trust essential
    - Contractors have open discussion of challenges
    - Federal staff provide time for course correction
    - Does not occur overnight
  - Contractors and NSO partnering facilitates development of valued added strategies
    - Preparing for site-wide DOE/NNSA HQ reviews
    - Addressing implementation of new requirements and/or site-wide challenges

Conclusions

- NSO ISM CCE Performance Dashboard
  - Value added process
  - Consistent methodology to monitor long-term ISM implementation
  - Track/trend capability assists with identification of potentially adverse trends
  - ISM CCE results supports development of Nevada Test Site ISM Annual Report as well as capturing site-wide improvement initiatives
- NSO ISM Council
  - Provides consistent “no fault” environment to discuss successes and challenges
  - Venue to respond to new requirements
  - Enhances partnering between NSO and participant representatives
- Perhaps most importantly, the NSO ISMC and ISM CCE annual review processes ensure that long-term ISM implementation remains on the forefront versus being viewed as just another regulatory requirement